

This Page Is Inserted by IFW Operations
and is not a part of the Official Record

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

IMAGES ARE BEST AVAILABLE COPY.

**As rescanning documents *will not* correct images,
please do not report the images to the
Image Problem Mailbox.**

REMARKS/ARGUMENTS

Upon entry of the present amendment, claims 5-16 will be pending in the application and presented for examination. Claims 5-8 and 11 have been allowed. Claims 9 and 12-14 have been amended. No new matter is present in this or any other portion of the present amendment. Reconsideration is requested in view of the amendments to the claim and the following remarks. For the Examiner's convenience and reference, Applicants' remarks are presented in the order in which the corresponding issues were raised in the Office Action.

I. REJECTION UNDER 35 U.S.C § 112, SECOND PARAGRAPH

The Examiner rejected claim 9 under 35 U.S.C. § 112, 2nd paragraph, as allegedly being indefinite for reciting a proviso that refers to variables E and J when the compound of the claim does not explicitly express these variables. To the extent the rejection is applicable to the amended set of claims, Applicants respectfully traverse the rejection.

With respect to claim 9, Applicants have deleted the proviso and furthermore, have canceled the substituents H, -CN and OR¹⁷ from variable G, thereby excluding the subject matter formerly addressed in the proviso. In view of the amendment to the claim, Applicants submit claim 9 clearly points out and distinctly claim the subject matter of the invention.

In view of the amendment to claim 9, Applicants submit that claim 10, which is dependent thereon, also satisfies the requirements 35 U.S.C. § 112, 2nd paragraph. As such, Applicants respectfully request that the rejection of claim 9 and the objection to claim 10 be withdrawn.

II. REJECTION UNDER 35 U.S.C § 112, FIRST PARAGRAPH

The Examiner rejected claims 14 and 15 under 35 U.S.C. § 112, 1st paragraph, alleging that the specification does not provide sufficient enablement for "preventing" diseases. To the extent the rejection is applicable to the amended set of claims, Applicants respectfully traverse the rejection.

In order to expedite prosecution of the present application, Applicants have amended claims 14 and 15 to delete the term "preventing". However, as a skilled artisan will realize, the term "treatment," as is currently claimed, includes prophylactic treatment. This is clear with the language on page 39, line 4, wherein treatment and prophylaxis are used in the same sentence. As such, Applicants believe the Examiner's rejection is now rendered moot and respectfully request the rejection be withdrawn.

III. REJECTION UNDER 35 U.S.C. § 103(a)

The Examiner rejected claims 12-14 and 16 under 35 U.S.C. § 103(a) as allegedly being obvious in view of Hirayama *et al.* (WO99/37643, "Hirayama"). The Examiner alleges that Hirayama teaches a compound, a tetrahydroquinolinone (table 4, #16, "Hirayama"), which is analogous to Applicants' compound in claim 12. The Examiner further alleges that the difference between the two compounds can be overcome by the teaching of equivalence provided in the Hirayama's formula (I). To the extent the rejection is applicable to the amended set of claims, Applicants respectfully traverse the rejection.

No *Prima Facie* Case of Obviousness Exists

As set forth in M.P.E.P. § 2143:

[t]o establish a *prima facie* case of obviousness, *three* basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

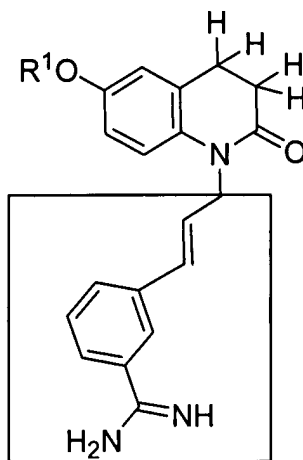
All three elements set forth above must be present in order to establish a *prima facie* case of obviousness. Applicants assert that a *prima facie* case of obviousness has not been established because there is no suggestion or motivation to modify the reference and there is no reasonable expectation of success.

1. There is No Suggestion or Motivation to Modify the Reference

Applicants state that there is simply no motivation or suggestion provided in the cited reference to modify their teaching in the way the Examiner has contemplated. Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

Hirayama *et al.* teach a *tetrahydroquinoline* compound that is substituted with a phenylamidine group (see, Table 4, page 33 of Hirayama *et al.* or the highlighted box reproduced below for the Examiner's convenience).

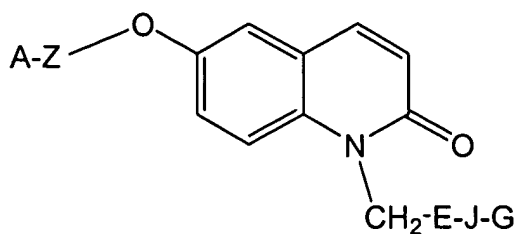
Hirayama's Tetrahydroquinoline



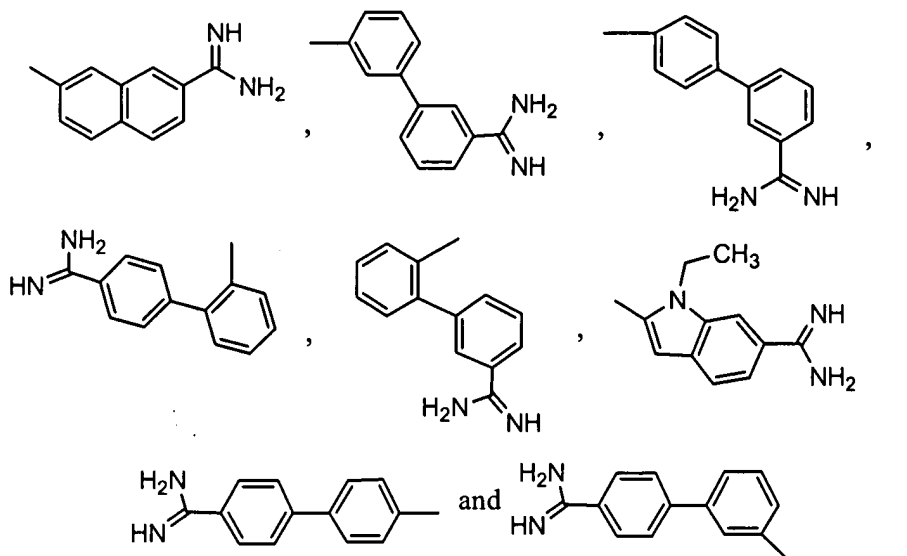
wherein R¹ is *N*-methylpiperidin-4-yl

In stark contrast, Applicants teach *dihydroquinolinone* compounds that **do not** have a phenylamidine group on the quinolinone nitrogen atom. For example, in amended claim 12, Applicants set forth preferred E-J-G groups of the present invention, which are all **biphenyl** or **heterocyclic** rings (see below).

Claim 12: Dihydroquinolinone and E-J-G groups:



Claim 12: Preferred E-J-G Groups



Hirayama *et al.* simply do not teach or suggest a *dihydroquinolinone* compound that has a biphenyl or a heterocyclic amidine group appended thereto. Further, Hirayama *et al.* do not teach or suggest the equivalence or the interchangeability of a phenylamidine group and a biphenyl/heterocyclic amidine group. Rather, Hirayama *et al.* only teach quinolinone compounds that have a **phenylamidine** group (*see*, on table 4, and in Abstract section, compound (I)). Therefore, Applicants respectfully request that the obviousness rejection be withdrawn.

2. There is No Reasonable Expectation of Success

In addition, there is no reasonable expectation of success that the modification the Examiner contemplates will succeed. "Both the suggestion and the expectation of success must be found in the prior art, not the Applicants' disclosure." *In re Dow Chem. Co.*, 5 U.S.P.Q.2d 1529, 1532 (Fed. Cir. 1988).

Applicants claim a preferred embodiment in claim 12, wherein the claimed dihydroquinolinone is substituted with a **biphenyl** or **heterocyclic** amidine groups. In view of Hirayama *et al.*, a skilled artisan would have no expectation of success that a dihydroquinolinone ring can be substituted with a biphenyl or heterocyclic amidine group as is presently taught and claimed. Rather, Hirayama *et al.* only teach tetrahydroquinolinones having a **phenyl** amidine group (*see*, abstract, compound I or Table 4, Hirayama). Thus, there is simply no teaching or suggestion in Hirayama *et al.* that replacing a phenyl amidine group with a biphenyl or heterocyclic amidine group will result in compounds having any beneficial use. Applicants submit that the Examiner has used hindsight reconstruction of the cited reference in an attempt to piece together the present invention. Hindsight reconstruction is impermissible and therefore, Applicants respectfully request that the Examiner withdraw the rejection.

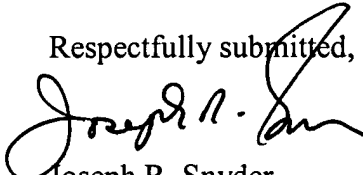
In view of the amendment to claim 12, Applicants submit that a *prima facie* case of obviousness has not been established, and respectfully request that the rejection be withdrawn.

IV. CONCLUSION

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 925-472-5000.

Respectfully submitted,



Joseph R. Snyder
Reg. No. 39,381

TOWNSEND and TOWNSEND and CREW LLP
Two Embarcadero Center, Eighth Floor
San Francisco, California 94111-3834
Tel: 925-472-5000
Fax: 415-576-0300
Attachments
JS:sc
60071564 v1